



EXHIBIT 1:  
CURRICULUM VITAE  
DAVID H. PERSING, M.D., PH.D.

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**CURRICULUM VITAE**  
**DAVID H. PERSING, M.D., PH.D.**

**David Harold Persing, M.D., Ph.D.**

**Date of Birth:** June 13, 1955, San Jose, California

**Address:** 2225 48th Street, S.W., Rochester, MN 55902

**Telephone:** (507) 284-2876 (Work)  
(507) 280-7696 (Home)  
**E-mail:** persing@mayo.edu

**Marital Staus:** Married

**Education:**

September 1974 - June 1979  
California State University, San Jose, California  
B.A. in Biochemistry awarded June 1979

October 1980 - May 1988  
School of Medicine, University of California, San Francisco

October 1981 - May 1988  
Medical Scientist Training Program,  
University of California, San Francisco

September 1982 - March 1987  
Graduate Program in Biochemistry and Biophysics,  
Division of Genetics, University of California,  
San Francisco

March 1988  
Ph.D. granted, Department of Biochemistry and  
Biophysics, University of California, San Francisco

May 1988  
M.D. granted, School of Medicine, University of California, San Francisco

July 1988 - June 1990  
Resident and Fellow, Department of Laboratory Medicine, Yale School of Medicine

July 1989 - September 1990  
Research Fellow, Department of Cell Biology, Yale School of Medicine

0323800-0909280

#### Honors:

Graduation with highest honors,  
California State University, San Jose, California, 1979

Departmental Honors in Chemistry, 1979

Finalist, Dean's Prize for Research, School of Medicine, 1981

Graduate Dean's prize for Student Research,  
University of California, San Francisco, 1984

Gip A. Hudson Award for the study of liver diseases,  
National Student Research Forum, Galveston, Texas, 1985

James McLaughlin Award for the study of infectious diseases,  
National Student Research Forum, Galveston, Texas, 1985

University Patent Funds Award, 1986

Young Investigator Award,  
Academy of Clinical Laboratory Physicians and Scientists, 1989

Mayo Foundation Scholar, 1990

U. S. Patent Application: "Sensitive and Specific Detection of *B. burgdorferi* by Nucleic Acid Amplification," 1994

U. S. Patent Application: "Specific Detection of Rifampin Resistant *Mycobacterium tuberculosis* by Nucleic Acid Amplification," 1994

U.S. Patent Application: "Method for Detecting *Borrelia burgdorferi* Infection," 1996

College of American Pathologists, Microbiology Resource Committee, 1993-present

ASM Foundation Lectureship, 1995-1997

Associate Editor: *Journal of Clinical Microbiology*, 1996-

Associate Editor: *Molecular Diagnosis*, 1996-

1997 Justus Strom Award , Swedish Medical Society

#### Dubious Honors:

Consultant to Criminal Attorney Barry Scheck and invited expert witness, O.J. Simpson criminal trial

**Editorial Boards:**

Journal of Clinical Microbiology (1990-1996)  
Diagnostic Microbiology and Infectious Diseases (1994-96)  
New England Journal of Medicine (Regular Reviewer)  
Gastroenterology (Regular Reviewer)  
Journal of Infectious Diseases (Guest Reviewer)

**Scientific Advisory Boards:**

Vysis, Inc., Naperville, IL (1995-present)  
Corixa, Inc., Seattle, WA (1995-present)  
BioMerieux, Marcy L'Etoile, France (1996-present)

**Licensure and Certification:**

Status: Medicine and Surgery License #35080, State of Minnesota  
Board Certified Forensic Examiner  
Board Eligible, Clinical Pathology

**Appointments:**

Summer Research Fellowship, University of California,  
San Francisco, School of Medicine, 1980

September 1981 to May 1988:

Medical Scientist Training Program, University of California, San Francisco

July 1988 to June 1990:

Resident, Department of Laboratory Medicine, Yale University School of Medicine

July 1990 to September 1990:

Mayo Foundation Scholar, Department of Cell Biology, Yale University School of Medicine

September 1990 to June 1994:

Senior Associate Consultant, Divisions of Clinical Microbiology, Experimental Pathology and  
Infectious Diseases, Mayo Clinic/Foundation

June 1994 to present:

Consultant, Divisions of Clinical Microbiology, Experimental Pathology and Infectious Diseases,  
Mayo Clinic/Foundation

January 1991 to June 1995:

Assistant Professor, Department of Laboratory Medicine and Pathology, Mayo Medical School

July 1995 to present:

Associate Professor of Microbiology, Mayo Medical School, Mayo Clinic/Foundation

July 1995 to present:

Associate Professor, Department of Laboratory Medicine and Pathology, Mayo Medical School

September 1991 to present:  
Adjunct Assistant Professor, Department of Biology/  
Microbiology, University of Wisconsin-La Crosse

1996 to present:  
M.D.- Ph.D. Program Council, Mayo Medical School

**Societies:**

American Association for the Advancement of Science  
California Medical Association  
American Society for Microbiology  
Minnesota Medical Association  
American Medical Association  
American Society for Tropical Medicine and Hygiene  
American College of Rheumatology

**Teaching Experience:**

Teaching Assistant, Chemistry for Engineers, San Jose State University,  
September 1979 to June 1980

Graduate Teaching Assistant, Introductory Biochemistry  
UC San Francisco, September 1982 to April 1983

Instructor, Biochemistry National Boards Review Course,  
School of Dentistry, UC San Francisco, 1983-1986

Biochemistry Advisor, Health Science Special Services  
Summer Program, 1984-1986

Laboratory Instructor, Medical Microbiology Course, Yale School of  
Medicine, 1988-1989

Lecturer, Medical Microbiology Course, Yale School of Medicine, 1989

Medical Microbiology Course, Mayo Medical School, 1991-present

**Volunteer Services:**

Department of Public Health, Huehuetenango, Guatemala,  
1977-1978

National Ski Patrol, Alpine Meadows and Homewood, CA, 1978-1981

Dorothy Day House, Rochester, MN, 1992-present

**Extracurricular Activities:**

Skiing, vintage automobile restoration, brass ensemble (trombone)

## Research Experience and Supervisors:

Spring 1979 - Summer 1980

Dr. Robert Fowler, Department of Biology, San Jose State University. Mutational specificity of the base analogue, 2-aminopurine in *Escherichia coli*.

Summer 1980 - Spring 1981

Dr. Phillip Coffino, Department of Microbiology, UC San Francisco. Mechanism of 2-aminopurine mutagenesis in mouse T-lymphosarcoma cells.

Summer 1981 - Fall 1981

Dr. Harold E. Varmus, Department of Microbiology, UC San Francisco. Molecular analysis of mutant src alleles.

Summer 1982 - Winter 1983

Dr. Patrick O'Farrell, Department of Biochemistry, UC San Francisco. Isolation and characterization of DNA clones representing the engrailed locus of *Drosophila melanogaster*.

Spring 1983 to 1988

Drs. Donald Ganem and Harold Varmus (1989 Nobel Laureate) (thesis co-advisors) Identification and characterization of the presurface proteins of hepatitis B virus.

July 1989 to September 1990

Dr. Ari Helenius, Department of Cell Biology, Yale School of Medicine.  
Papovaviruses: Assembly, Disassembly, and Cellular Interactions.

## Current Research Interests:

Laboratory-based, extramurally funded programs

- 1) Immunological interactions of tick-borne infections
- 2) Determinants of microbial persistence and tissue tropism
- 3) Effects of T cell differentiation on disease expression
- 4) Identification of novel T cell adjuvants from microbial sources

Clinical research

- 1) Association of viral heterogeneity and host immunogenetic determinants in viral disease expression
- 2) Pathogen discovery by broad-range amplification techniques
- 3) Association of infections with cancer and chronic human diseases

Extramural Support:

NIH - Allergy and Infectious Diseases: 1-PO1-AI30548-01-A1 (9/1/91 - 8/31/96)

Lyme Disease: Pathogenesis and Protection (Yale Program Project Grant),

P.I.: S. W. Barthold, D.V.M., Ph.D. Co-investigator: David H. Persing, M.D., Ph.D.;  
\$295,407 award amount, direct costs

NIH - Allergy and Infectious Diseases: 1-R01-AI32403-01 (9/30/91 - 8/31/97)

Mechanisms of Biological Variation in Lyme Disease,

P.I.: D. H. Persing, M.D., Ph.D.; \$1,006,775 award amount, direct costs, Status: renewal pending

NIH - Arthritis Institute 1-R01-AR41497-01 (9/1/91 - 8/31/95)  
Molecular Diagnosis and Monitoring of Lyme Disease,  
P.I.: D. H. Persing, M.D., Ph.D.; Co-funded with 1-R01-AI32403-01; \$227,359 award amount,  
direct costs; Status: decided against renewal of AR portion

Centers for Disease Control - U50/CCU510343- (4/15/94 - 2/1/98)  
Genetic Diversity of B. burgdorferi in the United States;  
P.I.: D. H. Persing, M.D., Ph.D.; \$120,000 total costs per year

Centers for Disease Control - U50/CCU510528 (11/1/97 - 10/31/00)  
Recombinant Immunoassays for Detection of Babesia microti Infection;  
P.I.: David H. Persing, M.D., Ph.D.; \$62,500 per year, direct costs

NIH - Allergy and Infectious Disease: 1-R01-AI45253-01 (9/30/94-9/29/99) Animal Models for  
Chronic Lyme Disease;  
P.I.: Stephen W. Barthold, D.V.M., Ph.D.; Co-investigator: David H. Persing, M.D., Ph.D.;  
Co-investigator portion: \$683,114 total award amount, direct costs

Chiron Corporation - Molecular Diagnostic Assay Development Award (12/1/92-present);  
Co-investigator: David H. Persing, M.D., Ph.D.; Coinvestigator portion: \$104,000 per year, direct  
costs

Corixa Corporation - 4-1-96 to present (indefinite termination) Identification of Microbial  
Biomolecules with Novel Immunologic Properties;  
P.I.: David H. Persing, M.D., Ph.D.; \$50,000 per year, direct costs

NIH - Allergy and Infectious Disease 1-R01-AI41103-0; Investigation of the Natural History of  
Babesiosis (5/1/97 - 5/31/00); \$124,914 per year, direct costs